

THE BEAN BAG

13.4/233



A newsletter to promote communication among research scientists concerned with the systematics of the Leguminosae/Fabaceae.

Editor; R.S.Cowan, Department of Botany, Smithsonian Institution, Washington, D.C. 20560

Associate Editor; Charles R. Gunn, Plant Taxonomy Laboratory, BARC-WEST, USDA,

Beltsville, Maryland 20705

No. 11

May 1980

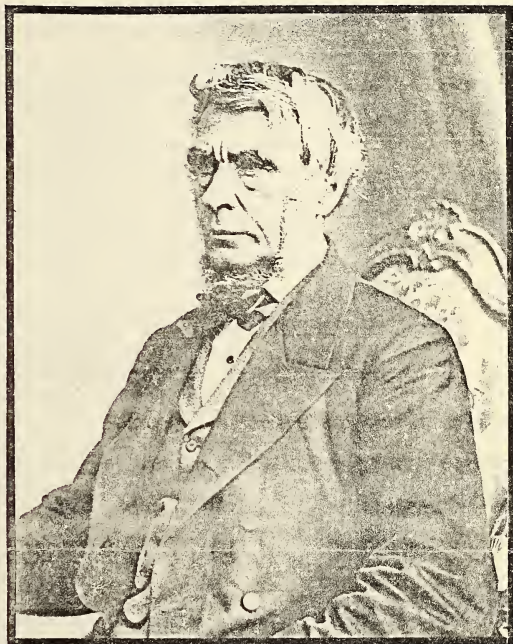
George Bentham

22 Sept. 1800 - 10 Sept. 1884

"Bentham was preeminently a worker" wrote B.D. Jackson in his book George Bentham (1906), words which in many ways is a summary of a highly successful life, an epitaph that is not eroded by the passage of time. Specialists studying legumes, especially tropical ones, think of Bentham as one of the fathers of leguminology, and so he was, but agrostologists also claim him and specialists in the Compositae, Scrophulariaceae, Labiatae, Cyperaceae, and Orchidaceae also feel some kinship, albeit less acutely. Jackson's biography lists nearly 200 publications, many of which were book-length, about 10% of which treat legumes.

Some extracts from notices written by colleagues at the time of his death perhaps sum up better and more succinctly than we could the qualities of Bentham, the man.

Sir Joseph Hooker, his close associate of many years wrote that it is difficult to give an "idea of the prodigious amount of systematic and descriptive work in phanerogamic botany that Bentham accomplished. In the Genera Plantarum there is hardly an order of any importance that he did not more or less remodel. His labours on the Compositae, Gramineae, Cyperaceae and Orchidaceae are especially noticeable, and he contributed masterly essays upon these and others to the Linnean Society. His treatises on the Leguminosae are not less exhaustive and valuable; and there is not a temperate or tropical region of the globe whose floras have not been largely elucidated by him. It may be safely affirmed that for variety and extent of good work of the kind, he had no superior. The distinctive qualities of his descriptions



Photograph, source unknown. Print at Hunt Institute.

are--scientific accuracy, good arrangement, precision of language, lucidity, and the discarding of what is superfluous. In these respects he has had no superior since the days of Linnaeus and Robert Brown, and he has left no equal except Asa Gray.

"Of his amiable disposition and his sterling qualities of head and heart it is impossible to speak too highly; though cold in manner and excessively shy in disposition, he was the kindest of helpmates and most disinterested of labourers for others" (Nature, xxx., 1884, pp. 543-544). Elsewhere Hooker says: "A prominent feature of Mr. Bentham's character was a constitutional reserve or rather shyness, often harassing to himself, which prevented many from appreciating his fine disposition and generous qualities. He was the most helpful of modern botanists, sparing neither time nor trouble in aiding his brother workers with head and hand, pen and microscope. . . . He catalogued, arranged and distributed most of the plants collected by Robert and Richard Schomburgk in Guiana, also Hartweg's collections and besides many lesser ones, those of his friend Richard Spruce. . . amounting to not less than 50,000 specimens. These were all gratuitous services, undertaken solely in the interest of botanical science, and it is impossible to over-estimate their importance as contributions to our knowledge of the flora of the richest tropical regions of the globe. Nor did his kind offices end with these acts, for in more than one instance he undertook the collection of money due from subscribers, with the view of saving his collecting friends the expense and trouble of agency and commission." (Proc. Linn. Soc. 1884-50). Asa Gray (Proc. Amer. Acad. 20. 1885) eulogized: "His long life was a perfect and precious example, much needed in this age, of persevering and thorough devotion to Science, while unconstrained as well as untrammelled by professional duty or necessity. For those endowed with leisure, to 'live laborious days' in service is not a common achievement."

Because sometimes we tend to endow our models with superhuman qualities, we should read Jackson's description (l.c) of his physical appearance: "In early and middle life he was nearly six feet, tall and erect, though in late years a stoop caused much of his height to be lost. His hair was originally black and abundant, with a curious white lock at the side of his head; in late life his hair was still fairly abundant, but silvered with age, though more scanty on the top of head. His sight was strong, and he wore spectacles all his life after boyhood; he would push these up on his forehead, when examining a plant with the naked eye, and that done, a movement of the brow would settle the spectacles once more in place. His eyes were dark and piercing, his features strongly marked, and almost hawk-like. . . . Spare in person, he ate but sparingly, and that quickly; in late years he used to breakfast, then drive to the town station, and after a day's work at Kew, would spend an hour before dinner writing out his notes in a fair copy for the printer. Latterly these were his two meals in the day, and none of the assistants in the Herbarium at Kew remember him taking even the slightest refreshment during his working hours."

On my first visit to the herbarium at Kew many years ago, the spectacles, the pen and inkwell that Bentham used were pointed out in a small display case and the small marble-top table used by Bentham's father, then by Bentham himself and subsequently by Sir Joseph Hooker also was still there in the herbarium. But the several hundred generic names for which he is at least partly responsible (about 20 of which are legumes), stand as a timeless memorial to a life spent in the service of the science of botany. [Besides references cited here, cf. TL-2/1, p. 173.1976] [Ed.]

ANNOUNCEMENTS

13th INTERNATIONAL BOTANICAL CONGRESS

President and Chairman of the Organizing Committee: Prof. Sir Rutherford Robertson.
Executive Secretary (correspondence, general matters): Dr. W.J. Cram, 13th I.B.C., University of Sydney, N.S.W. 2006, Australia.
Membership: \$ Aust. 120-150 (reduced fees for students and associate members)
Working language and abstracts: English.
Invitations: Provided by the Executive Secretary.
Second circular: Provided by the Executive Secretary. It will contain detail on the final program & field trips and forms for final registration, accommodations and field-trip bookings (to be requested as soon as possible).
Official Congress Opening: 21st August, 3 p.m.

FOURTH MEETING OF INTERNATIONAL GROUP FOR STUDY OF MIMOSOIDEAE

The next meeting of the I.G.S.M. will be held in Sydney with the 13th International Botanical Congress (August 21st to 28th, 1981).
Meeting and field trip: Dr. M.D. Tindale, Sydney, with the collaboration of Dr. A.B. Court, Dr. L. Pedley and Dr. B.R. Maslin.
Correspondence and Secretariat (general matters, information, papers): Dr. J Vassal, Laboratoire de Botanique & Biogéographie, Université Paul Sabatier, 39, Allées J. Guesde, 31077 TOULOUSE Cedex - France.
Provisional dates.
Meeting: Friday 21 August (8:30 a.m. - 1 p.m.)
Business meeting: To be arranged later.
Acacia field trip: Sunday 23 August; 1 day excursion to the Colo River Val along the Colo-Putty road, northwest of Sydney (National Park).
Papers: About 7 papers could be delivered at the I.G.S.M. meeting. Contributed papers submitted to the Program Committee of the International Botanical Congress also could be read in title and abstract at this meeting.

RHIZOBIA EXCHANGE

The USDA has started a RHIZOBIA EXCHANGE as part of the Rhizobium Collection and Study Project at Beltsville, Maryland. About 1,000 rhizobial strains are in the collection. Anyone interested in exchanging strains should write to Deane Weber, Room 116, Building 011A, BARC-West, Beltsville, Md. 20705, USA.

INTERNATIONAL SYMPOSIUM ON THE ECOLOGY OF THE BRUCHIDS ATTACKING LEGUMES (PULSES)

This Symposium was held April 16-19, 1980 at the University Francois Rabelais. General chairman G.S. Fraenkel chaired the first session on general ecological problems concerning bruchids; one of the speakers was B.J. SOUTHGATE. The second session, chaired by S. Uttida, covered relations between bruchids and their host plants. SOUTHGATE chaired the next session on the importance of polymorphism in different bruchid populations; the fourth session, chaired by C.D. Johnson, covered biogeography, parasitism and distribution of bruchid attacks. The final session, chaired by V. Labeyrie, was devoted to formulating a short and long-term international program on the ecological studies required to protect pulses and to obtain pest-free crops.

* * * * *

DIRECTORY CORRECTIONS

Please make these corrections in your copy of the Directory in BB-7.

Individuals

GIBBS: Delete address and replace with: Department of Botany, The University of St. Andrews, Fife KY16 AL Great Britain. (BB-7, page 4).
LARSEN (both K. and S.S.): Insert after Botanisk Institut: Aarhus Universitet. (BB-7, page 5).

* * * * *

DIRECTORY ADDENDUM IV

These new readers are additions to those who are listed in the BB-7 Directory and subsequent issues.

Individuals

ANDERSON, Arthur R.; Pioneer Hi-Bred International, Inc., Microbial Products Division, 3930 S. W. Macadam Avenue, Portland, Oregon 97201 USA; [Rhizobium]

ATHAR, Mohammad; Department of Botany, University of Karachi, University Road, Karachi 32, INDIA

BATTHYANY, C.; Nitrasoil Argentina S.A., Florida 622, 40 Piso, Buenos Aires, ARGENTINA; [Rhizobium]

BRENNER, D.; Antioch College, Yellow Springs, Ohio, 45387. [Student: Systematics of Pithecellobium]

MARTA DE ALBUQUERQUE, J.; Faculdade de Ciencias Agrarias do Para-Botânica, Caixa Postal 917 66.000, Belém, Pará, BRAZIL. [Pigeon-pea and other edible-seeded legumes]

MISHRA, A.K.; Dr.; Department of Microbiology, Bose Institute, 93/1, A.P.C. Road, Calcutta-700 009, INDIA

RAMOS, E.G.; Departamento de Recursos Vegetales, Universidad Juarez Autonoma de Tabasco, Apartado Postal 294, Villahermosa, Tabasco, MEXICO; [Legumes of Tabasco]

SAINT-MARTIN, Maryse; Laboratoire de Botanique, Université Paul Sabatier, 39 Allées Jules Guesde, 31077 Toulouse Cedex, FRANCE

SHAH, N.C.; Central Institute of Medicinal and Aromatic Plants, 474/6 Sitapur Road, Lucknow-226007, INDIA

TEMPLETON, Jr.; W.C.; (Director); U.S. Regional Pasture Research Laboratory, USDA, University Park, Pennsylvania 16802, USA; [Pasture legumes]

TRYBA, Sue E.; (Graduate student); Department of Botany, Southern Illinois University, Carbondale, Illinois 62901 USA

YOPP, John H.; (Dr.); Department of Botany, Southern Illinois University, Carbondale, Illinois 62901 USA

* * * * *

GLEANINGS FROM THE DATA COLLECTION SHEETS

BARETTA-KUIPERS: See NIELSEN.

GIANGUALANI moved to Brazil (from Argentina) in April. She reports that E.A. Ulibarri of the Darwin Institute is working on Adesmia of Argentina.

GOMEZ-SOSA has started a taxonomic study of Astragalus in Provincia de Jujuy (NW Argentina). She also is contributing to a preliminary synopsis of the Galegeae of Argentina and environs. Will be collecting in NW Argentina: Jujuy, Salta, Tucuman, Catamarca, and San Juan.

GRAHAM: See SILVA.

GUINET: See NIELSEN.

GUNN will be working this summer on his legume seed-fruits research at (W), (B), (P), and (K). Has finished a first draft of a legume supraspecific nomenclator. He is working with LACKEY on a Phaseolus species nomenclator and with LASSETTER on a Vicia species nomenclator.

HANELT reports that Doris Meyer of the Central-Institute for Genetics and Research of Cultivated Plants in Gatersleben (DDR) has completed a numerical taxonomic study of a Pisum collection in order to test numerical methods for specific classification of cultivated plants and to test the usefulness of different coefficients of similarity.

HYMOWITZ needs viable seeds of Fminia, Nogra, Pseudeminia, Pseudovigna, Pueraria, Sinodolichos, and Teyleria.

LACKEY: See GUNN.

LANGENHEIM: See SILVA.

LARSEN and LARSEN are planning a 1981 trip to Brazil and will annotate Old World Bauhinia spp. and SE Asian Caesalpinioideae.

LASSETTER: See GUNN.

MOHLENBROCK is starting chromatographic and SEM studies on several species complexes in Zornia and Stylosanthes, and he also is continuing his studies on Enterolobium. He will annotate these genera. A graduate student, J. Howe, has started a revisionary study of Apios, with particular emphasis on the life histories of A. americana and A. priceana.

NIELSEN has completed a paper on Mimosoideae of Indochina and has started a revision of this subfamily for "Flore de la Nouvelle-Calédonie, etc." He with GUINET and BARETTA-KUIPERS are revising the Ingeae for Asia, Malesia, Australia, and Pacific Basin. He just returned from (BO). Will annotate Archidendron, Albizia, Serianthes from Malesia, Pacific Basin, Australia and Mainland Asia, as well as Acacia from Mainland Asia.

SAINT-MARTIN wants seeds of Crotalaria and Lotononis.

SCHREIBER is preparing a revision of the South West Africa species of Caesalpinia. Would like to receive Lebeckia sheets. Will annotate legumes from South West Africa.

SHYAM has completed a revision of the Caesalpinioideae for "Flora of India" and has completed a typescript of seed morphology of Cassia spp. in India.

SILVA has completed a monograph of Dimorphandra and is preparing a revision of Jacqueshuberia with GRAHAM and Copaifera of South America with LANGENHEIM. Would like to receive type photographs, literature, and specimens of these genera for the herbarium.

TRYBA (address in this issue) wants viable seeds of Crotalaria sagittalis for ecophysiological study. Especially needed are seed collections from the northeastern United States (Massachusetts, Connecticut, etc.) and plant specimens with attached root nodules.

VERDCOURT has revised Macrotyloma (all spp. illustrated), to be published in Hooker's Icones Plantarum. Illustrations by P. Halliday. He will not be going to Tanzania and remains firm in his plan to return to the Rubiaceae.

VIDAL announced his retirement and is replaced by Mrs. C. Tiroi as editor of "Flore du Cambodge, Laos, Viêt-Nam." He remains a member of the editorial board of "Flora of Thailand." He reports that NIELSEN revised the Mimosoideae and LARSEN and LARSEN and VIDAL revised the Caesalpinioideae for "Flore du Cambodge, Laos, Viêt-Nam." THUAN revised the Phaseoleae for "Flora of Thailand." Suggests that someone finish Y.T. Lee's revision of Gleditsia. Will annotate Pterolobium, Asian Caesalpinia, and Caesalpinioideae of Indochina.

RECENT (POST 1978) LEGUME LITERATURE

When preparing a citation of your published legume paper or legume papers of general interest, please follow the form used in this BB. Use additional key words when needed to supplement the title. Major publications may have brief reviews. For additional information or reprints, write to the author or authors; the addresses of those whose names are fully capitalized may be found in BB-7-11. Only complete citations will be accepted.

- ATHAR. 1978. Qualitative study of the nodulating ability of legumes of Pakistan list 1. Pak. Jour. Bot. 10:95-100 [Fifty-two faboid species studied.]
- BARNEBY. 1980. *Draga Hippomanicum* V, VI. Brittonia 32:24-32.
- Becht, R. (Date Unknown). Revision der Sektion *Alopecuroidei* DC. der Gattung Astragalus L. *Phanerogamarum monographiae*, vol. 10. J. Cramer.
- Bhalla, N.P. and R.N. Dakwale. 1977. Taximetrics of Desmodium species. *Phytomorphology* 27:344-346.
- Budanova, V.I. 1978. Phaseolus of Mexico. *Trudy Prikl., Bot. Genet. Selek.* 63:148-153.
- Cruden, R.W. and K.G. Jensen. 1979. Viscin threads, pollination efficiency and low pollen-ovule ratios. *Amer. Jour. Bot.* 66:875-879.
- Dominguez, E. and E.F. Galiano. 1979. Revision del genero Tetragonolobus Scop. (*Fabaceae*). *Lagascalía* 8(2):189-214.
- DUKE, B.N. Okigbo, and C.F. Reed. 1977. Macrotyloma geocarpum (Harms, Marechal, and Baudet). *Tropical Grain Legume Bulletin* No. 10:12-13.
- Fantz, P.R. 1979. New Species of Clitoria Subgenus Bractearia (*Leguminosae*) from Peru and Ecuador. *Sida* 8:95-101.
- Fantz, P.R. 1979. Taxonomic notes and new sections of Clitoria, subgenus Bractearia, new subgenus, new status, *Leguminosae*. *Sida* 8:90-94.
- FERGUSON, and J.J. Skvarla. 1979. The pollen morphology of Cranocarpus martii (*Leguminosae-Papilionoideae*). *Grana* 18:15-20.
- Fernandez-Piqueras, J. 1979. Études caryologiques dans des espèces espagnoles du genre Anthyllis L. *Webbia* 34:489-496.
- Ghouse, A.K.M. and A. Jamal. 1978. Studies on the bark anatomy of some Cassia species. *Indian Jour. Bot.* 1:91-98.
- GOMEZ-SOSA. 1979. Las especies sudamericanas del género Astragalus (*Leguminosae*). I. Las especies patagónicas argentinas. *Darwiniana* 22:313-376.

- Gregory, M.P. and W.C. Gregory. 1979. Exotic germ-plasm of Arachis interspecific hybrids. Jour. Hered. 70:185-193. [1075 cross combinations.]
- GUNN. 1979. Genus Vicia with notes about tribe Vicieae (Fabaceae) in Mexico and Central America. USDA Tech. Bull. 1601, 41 pp. [Illustrated.]
- Gupta, M. and Y.S. Murty. 1978. Floral anatomy of Parochetos. Acta. Bot. Indica 6 (Suppl.):218-219.
- Gupta, M. and Y.S. Murty. 1978. Nodal anatomy in Trifolieae. Proceedings of the Indian Academy of Sciences, Botany 11:277-282.
- ICRISAT. 1979. International Chickpea Newsletter. Number 1. Distributed by Pulse Improvement Program, ICRISAT, Patancheru P.O., Andhra Pradesh 502324, India. [New newsletter.]
- IGSM. 1979. Bulletin No. 7 from the International Group for the Study of Mimosoideae. [Contact VASSAL for information about receiving this publication.]
- ISELY. 1980. New combinations and one new variety in Trifolium (Leguminosae). Brittonia 32:55-57.
- ISLEYA. 1979. [2 articles on legumes.] Vol. 1, No. 4.
- KANIS. 1978. A new species of Albizia carrii (Leguminosae-Mimosoideae) from Papuasia. Kew Bull. 32:727-729.
- Koptur, S. 1979. Facultative mutualism between weedy vetches bearing extrafloral nectaries and weedy ants in California. Amer. Jour. Bot. 66: 1016-1020.
- Kostermans, A.J.G.H. 1979. Notes on Leguminosae-Mimosoideae of Sri Lanka. Ceylon Jour. Sci. Biol. Sci. 13:253-259.
- KRUKOFF. 1979. Notes on the species of Erythrina: 14. Phytologia 44:19-32.
- LACKEY. 1980. Chromosome numbers in the Phaseoleae (Fabaceae: Faboideae) and their relation to taxonomy. Amer. Jour. Bot. 67(4):595-602.
- LARSEN and LARSEN. 1979. Nomenclatural notes on some Old World Bauhinia. Taxon 28:591-592.
- LARSEN and LARSEN. 1979. Taxonomic note on the Bauhinia pottsii complex. Bot. Tidskr. 74:7-11.
- Lebler, B.A. 1979. Wattles in southeastern Queensland: flowers in spikes. Queensl. Agric. Jour. 105:337-352.
- LEWIS. 1979. A preliminary checklist of the Leguminosae of Bahia. Kew, Royal

- Bot. Gdns. 2, 121 p. [Illustrated; maps.]
- Menezes, E.M. De. 1978. Comparative morphology of weed species of the genus Cassia L. (Leguminosae-Caesalpinioideae). I. Study of young plants: Taxonomic morphology. Brazil. Rev. Bras. Biol. 38:537-548.
- NEWELL and HYMOWITZ. 1980. A taxonomic revision in the genus Glycine subgenus Glycine (Leguminosae). Brittonia 32:63-69.
- Narang, A.K. 1978. Contribution to the embryology of Crotalaria species. J. Indian Bot. Soc. 57:322-331.
- NEVLING, and C.J. Niezgodá. 1978. On The genus Schleinitzia (Leguminosae-Mimosoideae). Adansonia 18:345-364.
- NIELSEN. 1979. Notes on the genus Albizia Durazz. (Leguminosae-Mimosoideae) in mainland S.E. Asia. Adansonia, ser. 2, 19:199-229.
- Ohashi, H. and S. Kurosawa. 1979. The chromosome numbers in Euchresta (Leguminosae). Jour. Jap. Bot. 54(2):39-42.
- Ott, E. 1978. Revision der Sektion Chronopus Bge. der Gattung Astragalus L. Phanerogamarum monographiae, vol. 9. J. Cramer.
- Pilbean, D.J., POLHILL and BELL. 1979. Free amino acids and alkaloids of South America, Asian and Australian Crotalaria species. Bot. Jour. Linn. Soc. 79:259-266.
- Poole, M.M. 1979. Pollen Morphology of Psophocarpus (Leguminosae) in relation to its taxonomy. Kew Bull. 34:211-220.
- Raina, S.N. and R.C. Verma. 1979. Cytogenetics of Crotalaria. I. Mitotic complements in twenty species of Crotalaria L. Cytologia 44:365-375.
- Reddy, P.K.R. and G.L. Shah. 1979. Observations on the cotyledonary and hypocotyledonary stomata and trichomes in some Caesalpinaceae with a note on their taxonomic significance. Fedde Repert. 90:239-250.
- REMBERT. 1980. The indigo of commerce in colonial North America. Econ. Bot. 33:128-134.
- Roblin, G. 1979. Mimosa pudica: A model for the study of excitability in plants. Biological Reviews 54:135-153.
- Sanogho, S. 1977. Contribution a L'Étude des Rhizobium de quelques espèces de légumineuses spontanées de la région de Bamako (Mali). Cahiers Orstom, Biologie 12:145-165.
- Sañudo, A. 1979. Chromosome variability in the Genisteae (Adans.) Benth. Webbia 34:363-408.

- Schmidt, B. 1979. Beiträge zur Kenntnis der Sippenstruktur der Gattung Coronilla L. Fedde Repert. 90:257-361.
- SHYAM, and V.D. Vartak. 1978. Contributions to the pollen morphology and palyno-taxonomy of Indian Caesalpiniaceae. II Palynological Conference, Bangalore.
- Srivastava, V. 1978. Pollen morphology of Cajanus cajan (Leguminosae) cultivars and their hybrids. Grana 17:107-110.
- Tewari, R.B., and P.K.K. Nair. 1978. Wing morphology of the flower in Crotalaria. Phytomorphology 28:283-290.
- Thothathri, K. 1978. Studies in Leguminosae, Part 25: New taxa in the genus Dalbergia. Bull. Bot. Surv. India 17:64-70.
- THUAN. 1979. Leguminosae-Papilionoideae-Phaseoleae. In: Flore du Cambodge, Laos, Viêt-Nam 17:1-217, pl. 1-32.
- Ulziikhutag, N. 1979. A taxonomic synopsis of species of the genus Oxytropis DC. (Fabaceae). In Flora of the Mongolian Peoples Republic. Bot. Zhurn. 64:1225-1236.
- Vasilschenko, I.T. 1979. Generis Astragalus L., species nova e Nepal. Novost. Sist. Vyssh. Rast. 16:140-141.
- VERDCOURT. 1978. A new combination in Oxyrhynchus papuanus (Leguminosae-Phaseoleae). Kew Bull. 32:779-780.
- VERDCOURT. 1979. A manual of New Guinea legumes. Botany Bulletin Number 11. Order from Division of Botany, Division of Forests D.P.I., P.O. Box 314, Lae, Papua-New Guinea. [Verdcourt has received a 50-book shipment from Lae and will sell these copies at cost. Write directly to him for price.]
- Whitmore, D.H. and L.H. Bragg. 1979. Isozymal differentiation between two species of Prosopis. Biochem. Syst. Ecol. 7:299-302.
- YAKOVLEV. Taxa nova generum Chesneya Lindl. ex Endl., Melissitus Medic. et Exostyles Schott (Fabaceae). Novost. Sist. Vyssh. Rast. 16:136-140.
-
- Summerfield, R.J. and A.H. Bunting (editors). 1980. Advances in legume sciences. Publications Department, Royal Botanic Gardens, Kew, Richmond Surrey TW9 3AB, England. [£ 15 with air mail at extra cost. Papers presented in the second part of the International Legume Conference which was held at Kew from 24 July to 4 August 1978. A review of the present state of knowledge in a number of fields of scientific endeavor which are increasingly important for the more productive agronomic uses of leguminous plants.]
-
- Tiwari, S.D.N. 1980. Phytogeography of legumes of M.P. [India]. [700 pp. book, distribution within state of all legume species; maps, charts, photos.]

DATA COLLECTION FORM FOR THE BEAN BAG

Last Name, First Name	Title
-----------------------	-------

Change of address:

Legume publications (yours or others) since last issue of BB. (Please follow style in a recent BB).

Legume projects completed since last issue of BB:

Legume projects started since last issue of BB:

2

Suggested legume projects suitable for graduate students:

Needed legume research material and exchange offerings:

Planned field trips:

Personal notes (include any item of general interest to your colleagues and comments to the editors):

Legume taxa willing to annotate: